UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/517,053	07/06/2005	Akira Nakao	074129-0515	2871	
7590 02/07/2008 Stephen B Maebius			EXAMINER		
Foley & Lardner Suite 500 3000 K Street NW			SIMMONS, CHRIS E		
			ART UNIT	PAPER NUMBER	
Washington, DC			1612		
		·	MAIL DATE	DELIVERY MODE	
			02/07/2008	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Applic	ation No.	Applicant(s)				
		7,053	NAKAO ET AL.				
Office Action Summar	y Exami	ner	Art Unit				
	Chris E	E. Simmons	1612				
The MAILING DATE of this com Period for Reply	munication appears on	the cover sheet with the	correspondence address				
A SHORTENED STATUTORY PERIOD WHICHEVER IS LONGER, FROM THE Extensions of time may be available under the proafter SIX (6) MONTHS from the mailing date of this If NO period for reply is specified above, the maxin Failure to reply within the set or extended period for Any reply received by the Office later than three mearned patent term adjustment. See 37 CFR 1.70	HE MAILING DATE OF visions of 37 CFR 1.136(a). In no communication. In the statutory period will apply an or reply will, by statute, cause the porths after the mailing date of this	THIS COMMUNICATION of event, however, may a reply be the driving will expire SIX (6) MONTHS from application to become ABANDON	N. imely filed mailing date of this communication. ED (35 U.S.C. § 133).				
Status							
1) Responsive to communication(							
2a) This action is <b>FINAL</b> .	·						
	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
closed in accordance with the p	ractice under <i>Ex parte</i>	Quayle, 1935 C.D. 11, 2	103 O.G. 213.				
Disposition of Claims							
4) ⊠ Claim(s) <u>1,2,7-17 and 19</u> is/are 4a) Of the above claim(s)  5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>1-2, 7-17, and 19</u> is/ar  7) □ Claim(s) is/are objected  8) □ Claim(s) are subject to r	_ is/are withdrawn from e rejected. to.	consideration.					
Application Papers							
9) The specification is objected to 10) The drawing(s) filed on is Applicant may not request that any Replacement drawing sheet(s) inc 11) The oath or declaration is object	s/are: a) accepted o objection to the drawing duding the correction is re	(s) be held in abeyance. Squired if the drawing(s) is o	ee 37 CFR 1.85(a). bjected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a calcalcalcalcalcalcalcalcalcalcalcalcalc	of: iority documents have iority documents have pies of the priority documents national Bureau (PCT	been received. been received in Applica uments have been recei Rule 17.2(a)).	ntion No  ved in this National Stage				
Attachment(s)  1) Notice of References Cited (PTO-892)		4)  Interview Summa	ry (PTO-413)				
2) Notice of Neterences Cited (PTO-052)  2) Notice of Draftsperson's Patent Drawing Rev  3) Information Disclosure Statement(s) (PTO/S Paper No(s)/Mail Date		Paper No(s)/Mail 5) Notice of Informal 6) Other:	Date				

10/517,053 Art Unit: 1612

### **DETAILED ACTION**

**Status of the claims:** Receipt of the RCE and amendment filed on 11/01/2007 is acknowledged. Accordingly, claim 1 is amended. Claims 1-2, 7-17, and 19 are presented for examination.

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

410

Claims 1-2 rejected under 35 U.S.C. 102(b) as being anticipated by JP 0558861.

N

10/517,053 Art Unit: 1612

The reference teaches a toothpaste composition comprising 0.2-10% wt. microcrystalline cellulose<sup>1</sup> with a particle size in the range of 0.3-6 micrometers. It teaches that such composition has a smoother property than those with bigger size particles (¶ 0017). Also a thixotropic property is exhibited allowing good dispersion of the polisher and providing easy squeezing out from the tube container and excellent shape retention on the toothbrush. The characteristics were found to be stable to temperature and ion concentration changes; the composition did not cause any sandy feeling inside the mouth and rinsing was found to be excellent (¶ 0010).

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

<sup>&</sup>lt;sup>1</sup> DATABASE CaPlus; Accession No.; 1993:260722 - Indicates the cellulose material referred throughout the JP 05058861 patent is the material with CAS registry number 9004-34-6 (i.e., microcrystalline cellulose).

Application/Control Number:

10/517,053 Art Unit: 1612

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 7-17, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/34275.

This rejection is maintained. Applicant argues that the reference prefers a size of about 20 micrometers to about 70 micrometers. Applicant further argues that instant invention is contained for providing to an oral composition a better shape-holding ability and dispersibility in an oral cavity and has a relatively low range for accomplishing this purpose. Applicant references instant specification filed on 07/06/2005 to show that when the diameter of the microcrystalline cellulose is above 10 micrometers, dispersibility in the oral cavity is deteriorated.

Applicant's remarks have been fully considered, however have not been deemed persuasive. Examiner agrees with Applicant's remarks filed on 11/01/2007 that the prior art discloses cellulose having a particle size of from about 1 micrometer to 350

micrometer (pg. 4, 2<sup>nd</sup> paragraph). This overlaps that newly added limitation in instant claim 1, "microcrystalline cellulose <u>having an average particle diameter of equal to or smaller than 10 micrometers</u>". However, the Examiner disagrees with Applicant's statement that one of skill in the art would not have been motivated to arrive at the present invention and use microcrystalline cellulose at a relatively low particle size. The reference clearly discloses that one skilled in the art has the option to choose a particle size that overlaps the present invention's claimed particle size of 10 micrometers or less.

Page 5

Claims 1, 2, 7-17, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/34275 in view of JP 0558861.

The references disclosures are outlined above or in a prior office action.

The primary reference does not expressly teach a particle size at 10 microns or lower.

The secondary reference does not expressly teach the composition further comprising a betaine or a cationic microbial agent.

Te skilled artisan would have found it obvious at the time of the invention to make the composition suggested be the primary reference being motivated by the desire to make a smooth creamy composition with good dispersion and shape retention.

#### Conclusion

No claims are allowed.

10/517,053 Art Unit: 1612

## Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris E. Simmons whose telephone number is (571) 272-9065. The examiner can normally be reached on Monday - Friday from 7:30 - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frederick Krass can be reached on (571) 272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chris Simmons Patent Examiner AU 1612

January 29, 2008

Frederick Krass Supervisory Patent Examiner

AU 1612

Application/Control Number: 10/517,053 Art Unit: 1612

Page 7